

IN THE CLAIMS:

Please amend claims 20, 27 and 30-32, cancel claims 21 and 28 without prejudice and add new claims 33-49 as follows:

1-19. (Canceled)

20. (Currently amended) A recording medium having a data structure for managing reproduction of menu data, comprising:

a video data storing area storing one or more playback units of video data;

a menu data area storing menu data comprising one or more thumbnail pictures corresponding to each playback unit~~as menu data, together and~~ each thumbnail picture ~~being stored~~ as a block of menu data; and

a menu management area storing menu management information, the menu management information providing an index to menu data ~~each thumbnail picture in the menu data area,~~

wherein at least one thumbnail picture in the menu data is reproduced based on the menu management information.

21. (Canceled)

22. (Previously presented) The recording medium of claim 20, wherein the menu data area records padding data between at least two of the blocks of menu data.

23-24. (Canceled)

25. (Previously presented) The recording medium of claim 20, wherein the menu management information indicates a number of the thumbnail pictures stored in the menu data area.

26. (Previously presented) The recording medium of claim 25, wherein the menu management information provides a starting address and ending address of each block of menu data, and a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the menu data area.

27. (Currently amended) The recording medium of claim 24~~20~~, wherein the index to a thumbnail picture is a starting address of the block of menu data for the thumbnail picture in the menu data area.

28-29. (Canceled)

30. (Currently amended) A method of reproducing menu data recorded on a recording medium, the method comprising:

~~reproducing, reading a~~ menu management information, ~~menu data and one or more playback units of video data~~ from the recording medium, the menu management

information providing an index to menu data, the menu data comprising one or more each thumbnail pictures corresponding to each playback units, together and each thumbnail stored as a block of in a menu data area of the recording medium; and

reproducing at least one thumbnail picture stored in the menu data area based on the menu management information, each thumbnail picture being stored as a block of menu data.

31. (Currently amended) A reproduction apparatus, comprising:

a driver configured to drive~~for driving~~ an optical reproducing device to ~~reproduce~~ read data recorded on the recording medium;

a controller configured to control~~for controlling~~ the driver to ~~reproduce~~ read a menu management information, menu data and one or more playback units of video data from the recording medium, the menu management information providing an index to menu data, the menu data each comprising one or more thumbnail pictures corresponding to each playback units, together and in a menu data area of the recording medium, and the controller controlling the driver to reproduce at least one thumbnail picture stored in the menu data area based on the menu management information, each thumbnail picture being stored as a block of menu data; and

a decoder configured to reproduce at least one thumbnail picture in the menu data based on the menu management information.

32. (Currently amended) A method of recording a data structure for managing

reproduction of menu data recorded on a recording medium, the method comprising:

recording one or more playback units of video data in a video data storing area of the recording medium;

recording menu data one or more thumbnail pictures as menu data in a menu data area of the recording medium, the menu data comprising one or more thumbnail pictures corresponding to each playback units, together and each thumbnail picture being stored as a block of menu data; and

recording menu management information in a menu management area of the recording medium, the menu management information providing an index to the menu data,

wherein at least one thumbnail picture in the menu data is reproduced based on the menu management information.

33. (New) A recording apparatus, comprising:

a driver configured to drive an optical reproducing device to write data to the recording medium; and

a controller configured to control the driver to write a menu management information, menu data and one or more playback units of video data to the recording medium, the menu management information providing an index to menu data, the menu data comprising one or more thumbnail pictures corresponding to each playback units, together and each thumbnail stored as a block of menu data,

wherein at least one thumbnail picture in the menu data is reproduced based on

the menu management information.

34. (New) The apparatus of claim 33, wherein the menu data area comprises padding data between at least two of the blocks of menu data.

35. (New) The apparatus of claim 33, wherein the menu management information indicates a number of the thumbnail pictures stored in the menu data area.

36. (New) The apparatus of claim 35, wherein the menu management information provides a starting address and ending address of each block of menu data, and a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the menu data area.

37. (New) The apparatus of claim 33, wherein the index to a thumbnail picture is a starting address of the block of menu data for the thumbnail picture in the menu data area.

38. (New) The method of claim 30, wherein the menu data area comprises padding data between at least two of the blocks of menu data.

39. (New) The method of claim 30, wherein the menu management information indicates a number of the thumbnail pictures stored in the menu data area.

40. (New) The method of claim 39, wherein the menu management information provides a starting address and ending address of each block of menu data, and a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the menu data area.

41. (New) The method of claim 30, wherein the index to a thumbnail picture is a starting address of the block of menu data for the thumbnail picture in the menu data area.

42. (New) The apparatus of claim 31, wherein the menu data area comprises padding data between at least two of the blocks of menu data.

43. (New) The apparatus of claim 31, wherein the menu management information indicates a number of the thumbnail pictures stored in the menu data area.

44. (New) The apparatus of claim 43, wherein the menu management information provides a starting address and ending address of each block of menu data, and a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the menu data area.

45. (New) The apparatus of claim 31, wherein the index to a thumbnail picture

is a starting address of the block of menu data for the thumbnail picture in the menu data area.

46. (New) The method of claim 32, wherein the menu data area comprises padding data between at least two of the blocks of menu data.

47. (New) The method of claim 32, wherein the menu management information indicates a number of the thumbnail pictures stored in the menu data area.

48. (New) The method of claim 47, wherein the menu management information provides a starting address and ending address of each block of menu data, and a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the menu data area.

49. (New) The method of claim 32, wherein the index to a thumbnail picture is a starting address of the block of menu data for the thumbnail picture in the menu data area.